

PROCESSING AND PROPERTIES INDEX																									
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GENERAL NOTE													ASR-SLA METALLURGICAL LITERATURE CLASSIFICATION												
SECTION 1													SECTION 2												
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CA 29 Rapid method of tanning red-tanned pig insole and sole. E. T. Litvin and L. M. Rozenberg. <i>Kozhevniko-Obuvnaya Prom. S. S. S. R.</i> 18, No. 12, 38(1939).—According to the first method, the raw skin was washed, unhaired and delimed with 1% (NH₄)₂SO₄ and up to 1.5% HCl to a pH of 6.7-6.8, washed and dehydrated with formalin, with 25% water and 1.5% formalin in the wt. of the raw skin. The formalin treatment was carried out for 10-12 hrs., till shrinkage temp. of the skin was not below 72°. The skins were then transferred into a drum and tanned with oak soln. of 14°Bé. for 48-60 hrs. The leather was in accordance with the specifications. According to the second method the same procedure is adopted, except that instead of pure oak exts. a mixt. of 75% oak and 25% synthetic tannin "AK" is used. The tanning required 15-20 hrs. and the leather was also satisfactory. The procedure is described in detail and physical and chem. properties of the leather are tabulated. A. A. B.																									

CA

Chemistry of the oxidative cracking of hydrocarbons in vapor phase. S. S. Nametkin and L. M. Rozenberg. *Bull. acad. sci. U.R.S.S., Classe sci. tech.* 1943; No. 11/12, 3-14. — Tetrahydronaphthalene with O + N mixes, at 575° gives the more C_4H_8 , H₂ and H₂O the higher is the O/N ratio. Smaller amts. of C_4H_8 , toluene, o- and m-xylene, PhOH, o-C₁₀H₇OH, CH₄, etc. are obtained. Dehydronaphthalene yields less C_4H_8 and H₂; the gaseous product contains much C_4H_8 and other hydrocarbons C_4H_8 , and their yield increases with the O/N ratio; the liquid contains more unsat., than aromatic hydrocarbons, and also naphthenes, PhOH, and CH₃O. The mechanism of these reactions is discussed. B. A.

Inst. Mineral Fuels, AS USSR

ASB-34 METALLURGICAL LITERATURE CLASSIFICATION

~~CONFIDENTIAL~~
Laboratory of Petroleum Chemistry, Institute of Mineral Fuels, Academy of Sciences,
USSR (-1944-)

"Data Concerning the Question of the Chemism of the Oxidation Cracking of Hydrocarbons in
the Vapor Phase. Report 3". Iz. Ak. Nauk. SSSR. Otdel. Tekh. Nauk. Nos. 10-11, 1944.

BR-52059019

ROSENBERG, L. N.

Organic Chemistry - "Catalytic Aromatization of Cycloaliphatic and Higher Paraffin Hydrocarbons," Bull. Acad. Sci., Classe Sci. Tech., 1947.

RUZITSKY, L. M.

FA 52/49T21

USSR/Chemistry - Hydrogenation
Chemistry - Dehydrogenation

May 49

"Dehydrogenation of Indan (Hydrindene)," L. M.
Rosenberg, Petroleum Inst, Acad Sci USSR,
23 pp

"Dok Ak Nauk SSSR" Vol LXVI, No 3

From results of experiment on indan with a chrome
catalyst at various temperatures and in different
atmospheres, and from analysis of gas and liquid
products of indan conversion, it may be considered
established that dehydrogenation occurs without a
break in the given five-member cycle. This is fully

USSR/Chemistry - Hydrogenation
(Contd)

52/49T21

May 49

covered by the doublet mechanism for dehydrogenation
of cyclic hydrocarbons on oxidized catalysts. Sum-
mitted by Acad S. S. Kuznetsov, 18 Mar 49.

52/49T21

CA

10

Cyclization of *n*-decane on a chromium catalyst. L. M. Rozenberg. *Doklady Akad. Nauk S.S.S.R.* 73, 719-22 (1976).—Passage of $C_{10}H_{22}$ at a space velocity of 0.25 l./l. catalyst/hr. on an Al-Cr catalyst gave the following balances (temp., g. $C_{10}H_{22}$ passed, g. catalyzate obtained, catalyzate yield in wt.-%, coke in wt.-%, % unsatd. in catalyzate, % aromatics, % $C_{10}H_{22}$ converted): 450°, 43.0, 38.2, 88.00, 2.44, 10.4, 30.83, 37.85; 470°, 57.8, 47.10, 81.50, 3.02, 11.7, 36.8, 52.55; 500°, 62.1, 44.2, 71.20, 8.24, 17.2, 60.3, 56.28. The compn. of the gas, in vol.-% C_4H_{10} , H_2 , and C_2H_6 , was, at 450°, 1.0, 94.00, and 4.10; at 470°, 1.3, 91.80, and 0.81; at 500°, 1.28, 88.01, and 10.10. By fractionation, and nitration or oxidation of the fractions, the catalyzate is shown to contain the aromatic hydrocarbons $C_{10}H_8$, PhMe, PhEt, *o*- C_6H_4 Me₂, PhPr, *o*-Me C_6H_4 Et, PhBu, $C_{10}H_6$, *o*-Me C_6H_4 Pr, and $C_{10}H_4$. The ratio of disubstituted to monosubstituted benzenes is 1.2-1.4 to 1. This confirms that the catalytic cyclization proceeds with greater ease in the direction of an interaction of 2 secondary C atoms than between a secondary and a primary C atom. The unsatd. products consist mainly of $C_{10}H_8$, the amt. of which remains practically independent (10%) of the temp., whereas the amt. of aromatics increases. The various products obtained can be represented by a scheme involving cyclization and cracking reactions. This scheme includes all theoretically possible variants. The formation of $C_{10}H_8$ proceeds in 2 stages, formation of PhBu and its subsequent cyclization to $C_{10}H_8$, according to the previously proposed mechanism (C.A. 42, 3339a). N. Thon

CA

22

Decahydronaphthalene and its homologs in Surakhhan petroleum oil. L. M. Rozenberg. Doklady Akad. Nauk S.S.S.R. 80, 700-71 (1951). -- Among the components of the kerosine fraction, b. 130-312°, C₁₀H₁₈, its 1- and 2-Me derivs., and 1,8-di-Me derivs. were detected by means of picrates. Also decahydronaphthalene, its 1- and 2-Me derivs. and 1,8-di-Me deriv. were detected. Other homologs appear to be absent. G. M. Kosolapoff

USSR/Chemistry - Hydrocarbons

21 May 52

"The Problem of the Separation of n-Paraffin Hydrocarbons With the Aid of Urea," L. M. Rozenberg, I. S. Genekh, Petroleum Inst, Acad Sci USSR

"Dok Ak Nauk SSSR" Vol LXXXIV, No 3, pp 523-526

Regarding the effect of the temp and a varying amt of methyl alc on the yield of the cryst substances produced by the reaction of urea and n-paraffin hydrocarbons, it was discovered that the most favorable temp for the formation of a complex was 20-22°, and the requisite quantity of methyl alc was 15-18% by wt of the given urea. This work investigated:

225T7

(1) the capacity of a series of individual hydrocarbons of different structure to react with urea both in the pure state and in compd form; (2) the mol relationships under which urea reacted with n-paraffins of a different mol wt; (3) the conditions surrounding the quant sepn of n-paraffins from synthetic compds and petroleum fractions; and (4) the sepn of n-paraffins from Karachukhur, Tuzmazin, and Surakhan kerosenes with the aid of urea. Presented by Acad A. V. Topchilov 20 Mar 52.

ROZENBERG, L. M.

225T7

USSR/Chemistry - Hydrocarbons

Card 1/1 : Pub. 22 - 14/41

Authors : Topchlev, A. V. Academician; Rozenberg, L. M.; Nechitaylo, N. A.; and Terentyeva, E. M.

Title : Differential-thermal investigation of the complex formation of urea with n-paraffins

Periodical : Dok. AN SSSR 98/2, 223-226, Sep 11, 1954

Abstract : Certain data connected with the clarification of conditions leading to complex formation of solid paraffinic hydrocarbons, are presented. Using octadecane $C_{18}H_{38}$ as an example the authors investigated the effect of the degree of paraffin purification on its ability of complex formation, thermal stability of the complex and the effect of an activator of various chemical nature. It was established that octadecane, having a high degree of purity and pulverization, reacts with urea at room temperature with the aid of an activator. The effect of absolute hydrocarbon purity on its reaction with urea in the presence and absence of activators, is explained. Eleven references: 5-USSR; 4-German; 1-USA and 1-English (1855-1954). Graphs.

Institution : Academy of Sciences, USSR, Petroleum Institute

Submitted : June 18, 1954

TOPCHIIYEV, A.V.; ROZENBERG, L.M.; NECHITAYLO, N.A.; TEREENT'YEVA, Ye.M.

Differential thermal study of complexing in the system:urea - $\sqrt{N}$ -paraffin.
Zhur.neorg.khim. 1 no.6:1185-1193 Je '56. (MLRA 9:10)
(Urea) (Paraffins)

ROZENBERG, L. M.

1140. COMPOSITION OF THE NAPHTHENE PORTION OF THE KEROSENE FRACTION
OF TUMAZININEX (DESMUTH) CRUDE OIL. Torshiev, A.V.; Rosenberg, L.M.;
Kusakov, M.M. and Shishkina, M.V. (Izv. Akad. Nauk SSSR, Otdel. Khim. Nauk

(Bull. Acad. Sci. U.S.S.R., Sect. Chem. Sci.), 1956, 1109-1119; abstr. in
Chem. Abstr., 1957, vol. 51, 3973). Ultra-violet spectroscopy of the aromatic
hydrocarbons formed by dehydrogenation of the naphthene portion of the
kerosene, showed that the kerosene contains meta and para isomers of alkyl-
cyclohexanes, including monoalkyl branched derivatives as well as trialkyl-
cyclohexanes with side chains in the 1,3,5 and 1,2,4 positions. Among the
tetraalkylcyclohexanes 1,2,3,4 and 1,2,3,5 distributions predominate. The
presence of penta- and hexaalkylcyclohexanes is not excluded by this work.
The kerosene contains also dihydroacenaphthene, and decahydronaphthalene and
its homologues, but dicyclohexyl is absent.

Am gmb
oan

ROZENBERG, L. M.

Thermal stability of complexes of paraffins with urea.
L. M. Rozenberg, E. M. Terent'eva, N. A. Nechitallo,
and A. V. Topchiev. *Doklady Akad. Nauk S.S.S.R.* 109,
1144-7 (1956).—Heating curves of a variety of complexes of
urea with n -alkanes show endothermic effects: low temp.
ones are indicative of phase changes of the alkanes, those at
medium temps. indicative of decompn. of the complexes,
and so at high temp. (134°, the m.p. of urea). The following
decompn. temps. are reported (no. of C atoms in alkane
shown): 16, 106.4–8.5°; 18, 115.8–17.1°; 20, 120–2.4°;
22, 120.6–3.1°; 24, 122.3–4.2°; 28, 125.8–6.6°; 30,
129.5–31.3°. With $C_{24}H_{50}$ the decompn. phase is absent
and the decompn. point, 130–1.9°, is estd. from the shape of
the curve.

G. M. Kosolapoff

chem

Rozenberg, L. M.

Detection of isoalkanes E. M. Terent'ev and L. M. Rozenberg (Petroleum Inst., Moscow). *Izvest. Akad. Nauk S.S.S.R., Otdel. Khim. Nauk* 1957, 1144. — A new color test is suggested for detection of isoalkanes in hydrocarbon mixts. It is based on partial chlorination at room temp. with aq. FeCl_3 and subsequent detection of ferrous ion by ferricyanide test; the green-blue ring formed by Turnbull blue at the interface of aq. and org. layers is sensitive enough to detect 1-2% of isoalkane. Pos. test is obtained only from hydrocarbons with a tertiary C atom. Substituted naphthalenes also give this test but octadecylcyclohexane gave a neg. result. Aromatics and unsaturates should be absent.

G. M. Kosolapoff

1/11

4

7-May

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4E3d
1E2c(j)

Rozenberg, L. M.

Systems of the n -paraffin hydrocarbons C_{20-22} and C_{22-24} .
N. A. Nechitalov, L. M. Rozenberg, E. M. Terent'eva, and
A. V. Topchiev. *Doklady Akad. Nauk S.S.S.R.* 116,
813-16(1957). The following polymorphic transformation
temps. and m.p.s. were found for pure samples of the fol-
lowing hydrocarbons: eicosane—, 37.5°; triacontane 59.0°;
68.2°; dotriacontane 94.0°; 89.5°. Phase diagrams were
established for binary systems of these hydrocarbons.
The system of the C_{22-24} pair has a eutectic at 93% eicosane
at 35.5°; at 29-30° there is a phase transition. The
system C_{20-22} forms a continuous series of solid solns.

G. M. Kosolapoff

5
4E4
4E3
4E2 c (j)
2 May 67

ACC NR: AP6034493 SOURCE CODE: UR/0204/66/006/005/0659/0664

AUTHOR: Rozenberg, L. M.; Ushakova, I. B.; Genekh, I. S.; Sanin, P. I.

ORG: Institute of Petrochemical Synthesis im. A. V. Topchiyev AN SSSR (Institut neftekhimicheskogo sinteza AN SSSR)

TITLE: Separation of cyclanes and branched alkanes from petroleum fractions by adsorption chromatography on activated carbon

SOURCE: Neftekhimiya, v. 6, no. 5, 1966, 659-664

TOPIC TAGS: petroleum, alkane, adsorption, adsorption chromatography

ABSTRACT: The adsorbability of hydrocarbons of different structures onto activated carbon BAU was determined in this gas-liquid chromatographic separation of various petroleum fractions. Polyalkyl substituted cyclanes are adsorbed least, n-alkanes most. Cyclanes with long side chains show a high degree of adsorption in comparison to polyalkyl substituted cyclanes, and branched alkanes have an intermediate position. In the absence of n-alkanes, the adsorption of cyclanes with long side chains is greater than that of branched alkanes, which is in turn greater than that of the polyalkyl substituted alkanes. Based on the differences in adsorption onto carbon, a method is developed for chromatographic separation of petroleum fractions to straight chain and branched alkanes and cyclanes. Orig. art. has: 4 tables.

Card 1/1 UDC: 547.21-125+547.592:543.544.2

ROZENBERG, L.M.

First All-Union Conference on Zeolites, Neftekhimiia 1
no.4:575-577 JI-Ag '61. (MIRA 16:11)

ROZENBERG, L.M.; USHAKOVA, I.B.; SHCHEKIN, V.V.; GENEKH, I.S.

Chromatographic separation of n-alkanes from petroleum
fractions on activated carbon. Neftekhimiia 3 no.4:472-
481 JI-Ag '63. (MIRA 16:11)

1. Institut neftekhimicheskogo sinteza AN SSSR imeni
A.V. Topchiyeva.

ROZENBERG, L. M.

Composition of the naphthene portion of the kerosine fraction of Tulumazinsk (Devonian) crude oil. A. V. Topchiev, L. M. Rozenberg, M. M. Kusakov, and M. V. Shishkina (Petrochem. Inst., Moscow). *Izvest. Akad. Nauk S.S.S.R., Otdel. Khim. Nauk* 1956, 1109-19. -- Ultraviolet spectrography of the aromatic hydrocarbons formed by dehydrogenation (Zelinskii, C.A. 6, 698) of the naphthene portion of the kerosine, showed that the kerosine contains meta and para isomers of alkylcyclohexanes, including monoalkyl branched deriva, as well as trialkylcyclohexanes with side chains in the 1,3,5- and 1,2,4-positions. Among the tetraalkylcyclohexanes 1,2,3,4- and 1,2,3,5-distributions predominate. The presence of penta- and hexaalkylcyclohexanes is not excluded by this work. The kerosine contains also dihydroacenaphthene, and decahydronaphthalene and its homologs, but dicyclohexyl is absent. G. M. K.

ROZENBERG, L.M.

MUSAYEV, I.A., ROSENBERG, L.M., NIPONTOVA, S.S., GALPERN, G.D.,
NECHITAYLO, N.A., TERENTIEVA, YE.M., KUSAKOV, M.M., SAMIN, P.I.

Investigating chemical composition of middle fractions of a
sulphurous crude oil in the USSR

Report to be submitted for the Sixth World Petroleum Congress,
Frankfurt, 16-26 June 63

NECHITAYLO, N.A.; TOPCHIEV, A.V.; ROZENBERG, L.M.; TEREENT'YEVA, Ye.M.
(Moscow)

Systems of n-paraffinic hydrocarbons. Zhur. fiz. khim. 34 no.12:
2694-2703 D '60. (MIRA 14:1)

1. Akademiya nauk SSSR, Institut neftekhimicheskogo sinteza, Moskva.
(Paraffins)

S/076/60/034/012/006/027
B020/B067

AUTHORS: Nechitaylo, N. A., Topchiyev, A. V., Rozenberg, L. M.,
and Terent'yeva, Ye. M.

TITLE: Study of n-Paraffinic Hydrocarbon Systems

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 12,
pp. 2694-2703

TEXT: Using the thermal and microstructural method the authors studied eight phase diagrams of n-paraffinic systems: $C_{30} - C_{32}$, $C_{30} - C_{34}$, $C_{30} - C_{36}$, $C_{26} - C_{30}$, $C_{22} - C_{30}$, $C_{20} - C_{30}$, $C_{22} - C_{26}$, and $C_{18} - C_{20}$. The following n-paraffins were synthesized according to Kolbe and Wurtz: octadecane $C_{18}H_{38}$, eicosane $C_{20}H_{42}$, docosane $C_{22}H_{46}$, hexacosane $C_{26}H_{54}$, triacontane $C_{30}H_{62}$, dotriacontane $C_{32}H_{66}$, tetratriacontane $C_{34}H_{70}$, and hexatriacontane $C_{36}H_{74}$. The heating and cooling curves were taken by an automatic, photorecording Kurnakov pyrometer. The temperatures of the

Card 1/3

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Study of n-Paraffinic Hydrocarbon Systems

S/076/60/034/012/006/027
B020/B067

phase transitions of the hydrocarbons synthesized are given in Table 1. The phase diagram of the systems $C_{30} - C_{32}$, $C_{30} - C_{34}$ and $C_{30} - C_{36}$ are shown in Figs. 1, 2 and 3. In all systems homogeneous solid solutions were formed. The systems $C_{30} - C_{20}$ (Fig. 4) and $C_{22} - C_{30}$ (Fig. 5) form eutectics (Fig. 5). The temperatures of the phase transitions obtained from the results of thermal analysis are given in Table 2. The system $C_{26} - C_{30}$ contains series of homogeneous solutions (Fig. 6 and Table 3). The phase diagram of the system $C_{18} - C_{20}$ is given in Fig. 7 and the results of the thermal analysis of the system are given in Table 4. C_{26} , which was synthesized by the authors, is a two-phase system whose monoclinic component predominates. The presence of a component with triclinic structure $C_{22} - C_{26}$ essentially influenced the results of thermal analysis and thus rendered certain parts of the phase diagram indistinct. The experimental material on binary systems of n-paraffins obtained as well as published data prove that the structure of the component is the decisive factor in the formation of systems. The ratio of the chain lengths in the

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Study of n-Paraffinic Hydrocarbon Systems

S/076/60/034/012/006/027
B020/B067

systems concerned is given in Table 6. According to the theoretical concepts which were presented in the papers by A. I. Kitaygorodskiy the phases with different structures cannot form a series of homogeneous solid solutions. Actually, the α -phases of both components are isomorphous in the system $C_{22} - C_{30}$, the hexagonal α -modification of triacontane, however, is stable only at temperatures above $58-59^{\circ}C$. Below these temperatures the monoclinic β -form of triacontane which forms a eutectic mixture with the hexagonal α -form of docosane is stable. V.M.Kravchenko and N. N. Yefremov are mentioned. There are 8 figures, 6 tables, and 30 references: 11 Soviet, 10 US, 4 British, 1 French, 1 Dutch, 2 German, and 1 Austrian. ✓

ASSOCIATION: Akademiya nauk SSSR, Institut neftekhimicheskogo sinteza, Moskva (Academy of Sciences USSR, Institute of Petrochemical Synthesis, Moscow)

SUBMITTED: March 10, 1959

Card 3/3

TERENT'YEVA, Ye.M.; ROZENBERG, L.M.

New qualitative reaction for detecting hydrocarbons with a tertiary carbon atom. Izv. AN SSSR. Otd. khim. nauk no. 3:385-388 Mr '59.
(MIRA 12:5)

1. Institut nefti AN SSSR.
(Hydrocarbons--Analysis)

5(3)

AUTHORS: Terent'yeva, Ye. M., Rozenberg, L. M. SOV/62-59-3-2/37

TITLE: A New Qualitative Reaction for Hydrocarbons With a Tertiary Carbon Atom (Novaya kachestvennaya reaktsiya na uglevodrody s tretichnym uglerodnym atomom)

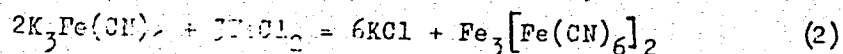
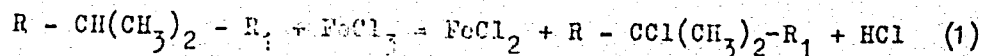
PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 3, pp 385-388 (USSR)

ABSTRACT: In the present paper a qualitative reaction with FeCl_3 for hydrocarbons having a tertiary carbon atom was suggested which permits the control of their occurrence in the form of impurities in paraffin-hydrocarbons of normal structure. It may be assumed that the reaction of ferric chloride with hydrocarbons proceeds in a similar way as the reaction of FeCl_3 with aromatic compounds (Ref 17). The chlorination of such hydrocarbons is accompanied by the transition of trivalent into bivalent iron. This transition can be observed on the formation of a greenish-blue ring of Turnbull blue on the line of separation between the hydrocarbon layer and the aqueous solution on addition of aqueous potassium ferricyanide solution

Card 1/3

A New Qualitative Reaction for Hydrocarbons
With a Tertiary Carbon Atom

SOV/62-59-3-2/37



The correctness of the assumed mechanism of reaction of the chlorination of branched paraffins with $FeCl_3$ was confirmed by means of chlorination of 2-methyl heptane at room temperature and following decomposition of the halogen derivative formed with metallic sodium and transformation of chlorine into chlorine ion. The qualitative reaction described was applied to experiments with individual paraffins, their mixtures and pure paraffin-hydrocarbons which were obtained from the kerosene fraction of the Romashkinskaya petroleum oil. The results obtained are shown by tables 1, 2 and 3. The experiments have shown that the reaction proceeds by 0.5% wherefore it is not suited for the device of a quantitative method.

Card 5/7

A New Qualitative Reaction for Hydrocarbons
With a Tertiary Carbon Atom

SOV/62-59-3-2/37

The considerable sensibility of the reaction of ferric chloride with potassium ferricyanide makes it possible to determine small impurities of hydrocarbons containing tertiary carbon atoms in paraffins of normal structure. There are 3 tables and 17 references, 9 of which are Soviet.

ASSOCIATION: Institut nefiti Akademii nauk SSSR (Petroleum Institute of the Academy of Sciences, USSR)

SUBMITTED: July 16, 1957

Card 3/3

ALLA BLEG, L. M.

PRIKHOTKO, A. F.

24(7) p 3 PHASE I BOOK EXPLOITATION SCT/1365
L'vov. Universitet

Materialy X Vsesoyuznogo soveshchaniya po spektroskopii. t. 1: Molekulyarnaya spektroskopiya (Papers of the 10th All-Union Conference on Spectroscopy. Vol. 1: Molecular Spectroscopy) [L'vov] Izd-vo L'vovskogo univ-ta, 1957. 499 p. 4,000 copies printed. (Series: Its: Fizichnyy zhurnal, vyp. 3/6/)

Additional Sponsoring Agency: Akademiya nauk SSSR. Komissiya po spektroskopii. Ed.: Jaser, S.L.; Tech. Ed.: Saranyuk, T.V.; Editorial Board: Lavitskiy, G.S., Academician (Resp. Ed., Deceased), Neporent, B.S., Doctor of Physical and Mathematical Sciences, Pabelinskiy, I.L., Doctor of Physical and Mathematical Sciences, Fabrikant, V.A., Doctor of Physical and Mathematical Sciences, Kornitskiy, V.G., Candidate of Technical Sciences, Rayzkiy, S.M., Candidate of Physical and Mathematical Sciences, Klimovskiy, L.K., Candidate of Physical and Mathematical Sciences, Milganchuk, V.S., Candidate of Physical and Mathematical Sciences, and Glauberman, A. Ye., Candidate of Physical and Mathematical Sciences.

Card 1/30

Luft, B.D., and Ye. S. Sher. Spectrophotometric Method for the Determination of Microquantities of Mineral Oil in Organic Solvents and on Metal Parts	337
Kozyreva, M.S., and I.V. Rodnikova. Study of Petroleum Oil by Means of Infrared Absorption Spectra	340
Sergiyenko, S.P., M.P. Teterina, and L.M. Razenberg. Infrared Spectroscopic Study of High Molecular Petroleum Paraffins	344
Kard, P.G. Analytical Theory of Multilayer Dielectric Coatings	350
Rozlyakova, V.A., and A.I. Finkel'shteyn. Absorption Spectra of Light Filters Made of Organic Glass For the Visible Spectrum	352
Lipskiy, Yu. N. Polarization Characteristics of Spectral Equipment	355

Card 22/30

AUTHORS:

Rozenberg, L. M., Topchiyev, A. V.,
Member, Academy of Sciences, USSR,
Ushakova, I. B., Genekh, I. S., Lyashkevich, N. I.,
Terent'yeva, Ye. M., Nikitina, P. A.

TITLE:

Investigation on Paraffinic Hydrocarbons in Kerosene Fractions
of the Aktashskaya Petroleum From Romashkinskoye Oil
Field (Issledovaniye parafinovykh
uglevodorodov kerosinovoy fraktsii aktashskoy nefti
Romashkinskogo mestorozhdeniya)

PERIODICAL:

Doklady Akademii nauk SSSR, 1958, Vol 122, Nr 4, pp 621 -
624 (USSR)

ABSTRACT:

There are great experimental difficulties confronting the
investigation of the individual composition and properties
of the aliphatic hydrocarbons of the high-boiling petroleum
fractions. A survey of publications follows (Refs 1 -
3, 10). The present paper was carried out in order to
obtain a qualitative and quantitative characteristic of the
n-paraffin-hydrocarbons (fraction 175 - 300°) of the petroleum
mentioned in the title. The oil is from the Devonian
sediments of the Mikhaylovskiy horizon D₀ from a depth of

Card 1/3

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...fractions
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...the properties and
...hydrocarbons when they were

ROZENBERG, L. M., TERENT'YEVA, Ye. M., NECHITAYLO, N. A. and TOPCHIEV, A. V.

"Separation of Petroleum Paraffins into Normal and Isomer Hydrocarbons"
p. 208

Composition and Properties of the High Molecular Weight Fraction of
Petroleum; Collection of Papers, Moscow, Izd-vo AN SSSR, 1958. 370pp. (Inta نفت)
2nd Collection of papers publ. by AU Conference, Jan 56, Moscow.

The temperature ranges for the decomposition of complexes of individual normal paraffins C_{16} to C_{32} were determined by means of the differential-thermal analysis. They can be used for the identification of normal paraffins. It was shown that urea is not a selective reagent for normal paraffins. Only slight branch paraffins easily form urea complexes. Most of the isoparaffins which were separated from the Grozny paraffin as urea complexes have slightly branched structures. Hydrocarbons which do not react with urea resemble the cycloparaffins. There are 6 figures, 2 tables, and 39 references of which 8 are Soviet, 24 English and 7 German.

KUSAKOV, M.M.; NIFONTOVA, S.S.; POKROVSKAYA, Ye.S.; ROZENBERG, L.M.;
TOPCHIEV, A.V.; SHISHKINA, M.V.

Absorption spectrum study in the near ultraviolet region of the
structure and group composition of the kerosene fraction. Fiz.
sbor. no.3:321-326 '57. (MIRA 11:8)

1. Institut nefti AN SSSR.
(Kerosene--Spectra)

KUSAKOV, M.M.; NIFONTOVA, S.S.; POKROVSKAYA, Ye.S.; ROZENBERG, L.M.;
TOPCHIEV, A.V.; SHISHKINA, M.V.

Absorption spectrum study in the near ultraviolet region of the
structure and group composition of the kerosene fraction. Fiz.
sbor. no.3:321-326 '57. (MIRA 11:8)

1. Institut nefti AN SSSR.
(Kerosene—Spectra)

ROZENBERG, L.M.

SERGIYENKO, S.R.; TETERINA, M.P.; ROZENBERG, L.M.

Infrared spectrum analysis of macromolecular paraffins from
petroleum. Trudy inst. nefti. 10:161-169 '57. (MIRA 11:4)
(Macromolecular compounds)
(Paraffins--Spectra)

ROZENBERG L.M.

TOPCHIEV, A.V., akademik; NECHITAYLO, N.A.; ROZENBERG, L.M.; TEREENT'YEVA,
Ye.M.

A study of normal paraffin $C_{30} - C_{34}$ and $C_{30} - C_{36}$ systems..

Dokl. AN SSSR¹¹⁷ no.4:629-631 D 57. (MIRA 11:3)

1. Institut nefti AN SSSR.

(Systems (Chemistry))
(Paraffins)

ROZENBERG, L.M.

NECHITAYLO, N.A.; ROZENBERG, L.M.; TERENT'YEVA, Ye.M.; TOPCHIEV, A.V.,
akademik.

Analysis of C_{20} - C_{30} and C_{30} - C_{32} n-paraffin systems. Dokl. AN
SSSR 116 no. 4:613-616 0 '57. (MIRA 11:3)
(Hydrocarbons) (Systems (Chemistry))

ROZENBERG, L. M.

AUTHORS: Topchiyev, A. V., Member of the AN USSR, 20-4-23/52
Nechitaylo, N. A., Rozenberg, L. M., and
Terent'yeva, Ye. M.

TITLE: A Study of the Systems of Normal Paraffinic Hydrocarbons
 $C_{30}-C_{34}$ and $C_{30}-C_{36}$ (Issledovaniye sistem normal'nykh
parafinovykh uglevodorov $C_{30}-C_{34}$ i $C_{30}-C_{36}$).

PERIODICAL: Doklady AN SSSR, 1957, Vol. 117, Nr 4, pp. 629-631 (USSR)

ABSTRACT: The authors studied (reference 1) the phase diagrams of the
systems of n-paraffin hydrocarbons of high molecular contents.
The treatise discussed here mentions further systems by
means of the differential-thermic method or of the micro-
structure method. These diagrams have not been described for
binary systems: triacontane-tetratriacontane ($C_{30}H_{62}-C_{34}H_{70}$)
and triacontane-hexatriacontane ($C_{30}H_{62}-C_{36}H_{74}$). The
experimental products were produced synthetically and
severals times recrystallized. As is well known all
n-paraffins have reversible polymorphous transformations,
whose temperatures as well as the melting temperatures
could be determined from the warming curves. The thermograms

Card 1/4

20-4-23/52

A Study of the Systems of Normal Paraffinic Hydrocarbons
 $C_{30}-C_{34}$ and $C_{30}-C_{36}$

were recorded by the photo-registering pyrometer of Kurnakov. The data given in table 1 and 2 are the average of several determinations. The warming curves of the mixtures of the systems investigated were perfectly identical with the cooling curves. The results of the thermic analysis of the binary system triacontane-tetratriacontane are given in table 1, its phase diagram can be seen in figure 1. Both substances form a system with continuous solid solutions (figure 1). The polymorphous modifications of n-paraffins which are eliminated from the melting mass during the cristallization process are denoted with α . They form a continuous solid solution which is also marked with α . After some lowering of temperature the α -solid solution changes into a continuous solid solution consisting of β -modifications. They remain stable in temperatures as low as room temperature. The β -solid solution suffers no changes at lower temperatures. The almost straight liquidus line

Card 2/4

A Study of the Systems of Normal Paraffinic Hydrocarbons
 $C_{30}-C_{34}$ and $C_{30}-C_{36}$

20-4-23/52

proves that when the second component is added to a hydrocarbon with higher melting point this point is only slightly lowered. The temperature of final crystallization is lowered more remarkably. It is very difficult to judge on the state of purity of the n-paraffin preparations by the determination of the melting point and the solidification point by means of the capillary method (thermometrically). It is hardly possible to state the begin and the end of the crystallization. The point of polymorphous transformation suffers a much stronger lowering of the temperature of crystallization when a second component is added. The transitional temperature is much more susceptible to the admixture than is the crystallization temperature. Table 2 shows the results of the thermic analysis of the system triacontane-hexatriacontane. Its phase diagram can be seen in figure 2. This system is analogous to the preceding one. Here, too, the liquidus line is almost straight. Thus the n-paraffins discussed above form systems of continuous solid solutions which in solid state suffer the first type of transformations according to Rozeboom.

Card 3/4

A Study of the Systems of Normal Paraffinic Hydrocarbons 20-4-23/52
 $C_{30}-C_{34}$ and $C_{30}-C_{36}$

There are 2 figures, 2 tables, and 8 references, 1 of which is Slavic.

ASSOCIATION: Institute for Petroleum of the AN USSR (Institut nefti Akademii nauk SSSR)

SUBMITTED: April 11, 1957

AVAILABLE: Library of Congress

Card 4/4

ROZENBERG, L.M.

AUTHORS: Nechitaylo, N. A., Rozenberg, L. M., 20-4-24/51
Terent'yeva, Ye. M., and Topchiyev, A. V., Academician

TITLE: Investigation of Systems of the H-Paraffin-Hydrocarbons C_{20} - C_{30} and C_{30} - C_{32} (Issledovaniye sistem H-parafinovykh uglevodorodov C_{20} - C_{30} i C_{30} - C_{32})

PERIODICAL: Doklady AN SSSR, 1957, Vol. 116, Nr 4, pp. 613-616 (USSR)

ABSTRACT: The hydrocarbons which form the petroleum paraffins are according to their chemical nature heterogeneous. Normal long chain hydrocarbons of C_{17} - A_{36} form their main part. In small quantities branched hydrocarbons, cycloparaffins, and alkyl benzenes occur. There are no perfect separation methods for hydrocarbons in the mentioned types. Therefore the industrial exploitation of the petroleum paraffins to the organic synthesis is considerably complicated. A detailed study of the properties of individual H-paraffins as well as of the interaction with each other and with the hydrocarbons of other classes is necessary for the identification and detection of the purity degree of the synthesized hydrocarbons etc. After a short review of references the authors find that the binary systems researched up to now do not contain the entire component range of the petroleum paraffins. The impossibility of a complete elimination of admixtures and occurrence

Card 1/4

Investigation of Systems of the H-Paraffin- Hydrocarbons. 20-4-24/51
 $C_{20} - C_{30}$ and $C_{30} - C_{32}$.

of manifold phase variations in the solid state complicates extremely the interpretation of the physical-chemical knowledge obtained by the classic methods. In present paper the investigation results of the state diagrams of the binary systems of the H-paraffins $C_{20}H_{42}-C_{30}H_{62}$ and $C_{30}H_{62}-C_{32}H_{66}$ are given by means of the differential-thermal and the microstructure method. There are no corresponding data in the references. Eikosan and triakontan were produced according to Kolbe by electrosynthesis, dotriakontan according to Wuerz, then several times purified. The warming- and moderating curves were detected by means of photoregistering pyrometer of Kurnakov. From these curves then the melting temperatures and those of the polymorphous transformation can be found. Table 1 shows the temperature of the phase variations in the system $n-C_{20}H_{42} - n-C_{30}H_{62}$, whereas figure 1 shows a state diagram. The system is eutectic. In all mixtures of 66-100% triakontan an effect occurs quite obviously at the warming- and moderating curves which corresponds to a polymorphous transformation of the concerning hydrocarbon. Its size increases, as it was expected, with the increase of the triakontan content. From the observed microstructure in the polarized light it can be assumed that the phase transition found at $29 - 30^{\circ}$ belong to the

Card 2/4

Investigation of Systems of the H-Paraffin- Hydrocarbon
 $C_{20} - C_{30}$ and $C_{30} - C_{32}$.

20-4-24/51

type of irreversible transformations which are observed in the case of H-paraffin-hydrocarbons and their derivatives with a moderately long chain (up to 22-C atoms). However, this transition is in spite of its irreversibility one of the slow ones which occur in the case of preparation conservation. No final opinion exists about this. For pure eikosan no polymorphous transformations were found. This corresponds to Hoffman's assumption (reference 15) that in the case of individual H-paraffin-hydrocarbons with only 22 and more C-atoms in the chain "turning- transitions" ("vrashchatel'nyye perechody"Pl) occur. The α -modifications of the triakontan and dotriakontan form an uninterrupted series of solid solutions. With dropping temperature the α -solid solution passes over into a β -solid solution which is formed by polymorphous carbon modification which are stable below the transition point. There are 2 figures, 2 tables, and 20 references, 3 of which are Slavic.

ASSOCIATION: None Given.

PRESENTED: None Given.
 Card 3/4

Investigation of Systems of the H-Paraffin- Hydrocarbon
C₂₀ - C₃₀ and C₃₀ - C₃₂.

20-4-24/51

SUBMITTED: September 19, 1956

AVAILABLE: Library of Congress

Card 4/4

ROZENBERG, L.M.; USHAKOVA, I.B.

Determination of the molecular weight of solid n-paraffinic hydrocarbons. Zhur. ob. khim. 30 no.11:3531-3534 N'60.

(MIRA 13:11)

1. Institut neftekhimicheskogo sinteza Akademii nauk SSSR.
(Hydrocarbons) (Molecular weights)

Rozenberg, L. Sh.

An apparatus for the preparation of small amounts of distilled water. L. Sh. Rozenberg. *Energetik* 4, No. 4, 18 (1950). Tap water can be distilled from a beaker. The H₂O level in the beaker is kept const. by the use of a glass bell. Werner Jacobson.

PM

ROZENBERG, L.Sh., inzhener.

Apparatus for preparing small quantities of distilled water. Energetik
4 no.4:18 Ap '56. (MLRA 9:7)

(Chemical apparatus)

CH

7

THE COLORIMETRIC DETERMINATION OF PHENOL. L. V. ROZENBERG. *Zashchita Lab. 3*, 122-3(1934). - An attempt was made to find a relation between the concn. and the intensity of coloration of PhOH solns. with Milon's reagent. The results of expd. study were calcd. by the formula of Bach (C. A. 6, 696) and presented by tables.

156 154 METALLURGICAL LITERATURE CLASSIFICATION

ROZENBERG, L.Ye.

Planning geobotanical displays. Biul.Glav.bot.sada no.33:11-17
'59. (MIRA 12:10)

1. Glavnyy botanicheskiy sad Akademii nauk SSSR.
(Botanical gardens)

38044. ROZENBERG, L. YE. AND SOKOLOV, M. P.

Voprosy planirovki dendrariya. [Gav. botan. sad]. Byulleten' Glav.
botan. sada, vyp. 4, 1949, s. 13-19

ROZENBERG, L. Ye.

Planning of TSauli Park. Biul. Glav. bot. sada no. 21:50-53 '55.
(MIRA 8:12)

1. Glavnyy botanicheskiy sad Akademii nauk SSSR.
(Moldavia--Botanical gardens)

GURAL'NIK, M.; ROZENBERG, M.; CHEKMAREVA, N.

Transportation of perishable products in isothermal containers.
Khol.tekh. 37 no.1:74-76 Ja-F '60. (MIRA 13:5)
(Food, Frozen--Transportation)
(Containers)

ROZENBERG, M., inzh.

Work of the river fleet on the Rhine. Rech.transp. 22 no.1:54-
55 Ja '63. (MIRA 16:2)

(Rhine River--Inland water transportation)

GURAL'NIK, M., kand.tekhn.nauk; ROZENBERG, M.

Isothermal containers for the transportation of cooled and frozen
products. Khol.tekh. 37 no.4:74 J1-Ag '60. (MIRA 13:11)
(United States--Refrigerator cars)

GONCHARENKO, S. (Kiev, USSR); ROZENBERG, M. (Kiev, USSR)

Correlation between teaching physics and manual training of students. Mat i fiz Bulg 5 no.6:32-39 N-D '62.

~~ROZENBERG, M.~~, inzh.; KULIKOV, F.

Use of keyboard computers in machine accounting. Rech. transp.
23 no.9:23-26 S '64.

(MIRA 19:1)

1. Glavnyy bukhgalter Cherepovetskogo sudoremontno-sudostroi-
tel'skogo zavoda (for Kulikov).

GURAL'NIK, M., kand.tekhn.nauk; ROZENBERG, M.

Special clothing for workers in warehouses kept at low temperatures.
Khol.tekh. 37 no.4:75-76 J1-Ag '60. (MIRA 13:11)
(Clothing, Cold weather)

PROCESSING AND PROPERTIES INDEX																									
1ST AND 2ND ORDERS													3RD AND 4TH ORDERS												
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z													A B C D E F G H I J K L M N O P Q R S T U V W X Y Z												
co The effect of the magnetic field upon the rate of solution of the diamagnetic and paramagnetic metals in acids. (The reaction between metals and acids in constant magnetic field.) M. A. ROZINBERG AND V. A. YUZA. <i>Ber. Ukrain. wiss. Forsch.-inst. physik. Chem.</i> 2, 30-41(1920).—The effect of a magnetic field upon the rate of solution in HCl of the following metals was studied: Fe, Ni, Co, Sb, Bi, Zn and Sn. The effect of the magnetic field upon the rate of solution of ferro- and paramagnetic metals in acids is to retard the reaction, and in the case of diamagnetic metals to augment the reaction. A brief description of the method and a brief theoretical discussion are given. H. S. LIVING																									
450-551 A METALLURGICAL LITERATURE CLASSIFICATION																									

ROZENBERG, M. A.

M. A. ROZENBERG, CR 4, 179-80, 1936

157. AND 2ND CORDERS

PROCESSES AND PROPERTIES INDEX

2

ca

Solution of chromium in sulfuric acid. M. A. Rosenberg, K. E. Avalania and F. B. Yurkovskaya. *Compt. rend. acad. sci. U. R. S. S. [N. S.]*, 4, 135-9 (1938) (in German). For comparison with the rate of soln. of massive metal in acid, the soln. properties of thin films or mirrors deposited by thermal evapn. *in vacuo* are studied. Cr films 25-67 μ m thick are rapidly sol. in 0.5 and 2 N H_2SO_4 at 18° and are insol. in 0.001 N acid, but if exposed to air or if deposited on a surface heated to 200° the films are rendered passive and are insol. in 2 N acid. The massive Cr used for film formation is also practically insol. in 2 N acid.

II. Solution of iron and nickel in sulfuric acid. M. A. Rosenberg and K. E. Avaliani. *Ibid.* 179-80.—Fe films dissolve rapidly in 2-0.01 N H_2SO_4 , and are not rendered passive by air. In 0.001 N acid, slow soln. and rust formation occur. Massive Fe in 0.5 or 2 N acid is insol. below 50°. Ni films 12-100 μ m thick dissolve slowly in 0.5 or 2 N acid and are insol. in 0.1 N acid. H. A. B.

157. AND 2ND CORDERS

PROCESSES AND PROPERTIES INDEX

2

ca

Solution of chromium in sulfuric acid. M. A. Rosenberg, K. E. Avalania and F. B. Yurkovskaya. *Compt. rend. acad. sci. U. R. S. S. [N. S.]*, 4, 135-9 (1938) (in German). For comparison with the rate of soln. of massive metal in acid, the soln. properties of thin films or mirrors deposited by thermal evapn. *in vacuo* are studied. Cr films 25-67 μ m thick are rapidly sol. in 0.5 and 2 N H_2SO_4 at 18° and are insol. in 0.001 N acid, but if exposed to air or if deposited on a surface heated to 200° the films are rendered passive and are insol. in 2 N acid. The massive Cr used for film formation is also practically insol. in 2 N acid.

II. Solution of iron and nickel in sulfuric acid. M. A. Rosenberg and K. E. Avaliani. *Ibid.* 179-80.—Fe films dissolve rapidly in 2-0.01 N H_2SO_4 , and are not rendered passive by air. In 0.001 N acid, slow soln. and rust formation occur. Massive Fe in 0.5 or 2 N acid is insol. below 50°. Ni films 12-100 μ m thick dissolve slowly in 0.5 or 2 N acid and are insol. in 0.1 N acid. H. A. B.

1ST AND 2ND ORDERS		3RD AND 4TH ORDERS	
ROZENBERG, M. A. Lev Volodimirovich Piontshov'ski, 1874-1946. M. A. Rozenberg. <i>Akad. Nauk U. R. S. R., Inst. Fiz. Khim.</i> 1940, 5-24; A. I. Brodskii. <i>Ibid.</i> 25-32; B. Ya. Dain. <i>Ibid.</i> 33-44; S. M. Moskovich. <i>Ibid.</i> 45-53; M. V. Polyakov and N. S. Schneider. <i>Ibid.</i> 55-69; V. A. Rolter and E. I. Shul'ts. <i>Ibid.</i> 72-8; P. I. Berezovskaya. <i>Ibid.</i> 79-89.—A collection of papers (185 pp.) on the life and scientific accomplishments of P. including short abstracts of 90 papers by P. and other authors (pp. 116-55). A portrait is included. B. Z. Kamich			
ASS-SLA METALLURGICAL LITERATURE CLASSIFICATION			
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13000 1100000		13000 1100000	

ROZENBERG, M. A.

"Lev Vladimirovich Pisarzhevskiy (On the Tenth Anniversary of His Death),"

Uspekhi Khim., 17, No. 4, 1948. Dnepropetrovsk, -c1948-.

ROZENBERG, M. H.

USSR

Effect of vitamin B₁ and niacin on the cardiac blood system and respiration of normal and anaphylactized animals. M. A. Rozenberg. *Med. Zhur., Akad. Nauk Ukr. R.S.R.* 23, No. 5, 36-41 (1963) (Russian summary); *Referat. Zhur., Khim.* 1954, No. 30645. -- Vitamin B₁ (I) injected into femur or jugular veins of normal and horse-serum-sensitized dogs and rabbits in the amt. of 0.08 g./kg. body wt. caused 2-fold effect on the blood pressure of the animals: 1st, the original pressure decreased 30-65%; 2nd, after 2-5 min. the pressure continuously increased reaching the value of 2-70% above the original. The dose of I used was in most instances fatal for rabbits but not for dogs. Niacin (II) injected in the same quantity increased the blood pressure 12-40%, both in the case of rabbits and dogs. The phase of the decreasing blood pressure, as observed when I was injected, was absent in the case of the II injection. Simultaneous admin. of I and II caused a positive chronotropic effect on the heart of the animals increasing at the same time the respiration rate and depth. I 0.08 or II 0.4 g./kg. body wt. given to the sensitized dogs or to the dogs and rabbits, resp., decreased the symptoms of anaphylactic shock in the animals; the small doses of II were without any effect in this respect. E. Wierbicki

Odessa Pharmaceutical Inst.

ROZENBERG, M.A.

USSR.

✓Chemical purification of carbonate scale in locomotive
boilers. M. A. Rozenberg, R. B. Yampol'skaya and E. I.
Pogorel'skiy. *Dnepropetrovsk. Gosudarst.
Univ.* 43, 3-8 (1953); *Referat. Zhur., Khim.* 1954, No. 22396.
—The removal of carbonate and mixed scale with 0.3-0.4%
HCl contg. 1% dichromate was studied. The boiler was
filled with water, heated to 60-70°, and to it were added
dichromate and HCl. A temp. of 70-80° was kept for 10
hrs. The treatment was very effective. A lab. study
showed that the loss of metal was 0.80 g./sq. m./hr., which
indicates a "resistant" metal. M. Hoseh

ROZENBERG, M. A.

Coagulation of natural waters. II. M. A. Rozenberg, L. M. Pal'kovskaya, and P. B. Yurkovskaya. *Vostochnye Zapiski Dnepropetrovsk. Univ.* 43, 17-21 (1953); *Referat. Zhur. Khim.* 1954, No. 20820; cf. *Sbornik Rabot Khim. Fakul'teta Dnepropetrovsk. Univ.* 37, 9 (1951).—The purpose of this investigation was to find the proper amt. of various coagulants for the removal of suspended matter from some natural waters. The effectiveness of coagulants was judged from their clearing effect and the ability of the water to form scale. Coupled with preliminary soda-lime softening of the water the optimal concn. of $\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$ for water from the river Samara contg. approx. 600 mg./l. suspended matter was 75 mg./l. and of $\text{Al}_2(\text{SO}_4)_3 \cdot 18\text{H}_2\text{O}$ for water from the river Volch'ya contg. about 450 mg./l. suspended matter was 60 mg./l. NaAlO_2 acted simultaneously as a softener and a coagulant. Its optimal concn. for Dnepropetrovsk city water contg. 200 mg./l. purposely added kaolin was 100-150 mg./l. M. H.

ROZENBERG, M.A.

Effect of vitamin B₁ and vitamin PP on the cardiovascular system and respiration in normal animals and in anaphylaxis. Med. zh., Kiev 23 no.5:36-42 1953. (CIML 25:5)

1. Odessa Pharmaceutical Institute.

PORTNOV, A.I. otvetstvennyy redaktor; KNIZHKO, P.O., redaktor; KRAMARENKO, V.F., redaktor; NAUMENKO, M.A., redaktor; PIVNENKO, G.P., redaktor; ROZENBERG, M.A., redaktor; SAVITSKIY, I.V., redaktor; TROTSSENKO, A.G., redaktor; SHELUD'KO, V.M., redaktor; VAYSMAN, G.A., redaktor; MEDVEDEVA, N.B., redaktor; GIMSHTYIN, A.D., tekhnicheskiiy redaktor

[Problems in pharmacy; a collection of scientific papers from pharmaceutical schools of the Ukraine] Nekotorye voprosy farmatsii; sbornik nauchnykh trudov vysshikh farmatsevticheskikh uchebnykh zavedenii Ukrainskoi SSR. Kiev, Gos. med. izd-vo USSR, 1956. 366 p. (MLRA 10:5)

1. Ukraine. Ministerstvo zdravookhraneniya.
(PHARMACY)

SLAVIN, Yu., Inzh.; KORDON, V.A., Inzh.; KOTIKOV, A.A., Inzh.;
USACHOV, N.G., Inzh.

Compressor with graphite packing. Khim. i nef't. mashinost. no.4:
7-9 1964. (MIRA 17:12)

TOGUNOV, Boris Mikhaylovich; STEFANOVSKIY, Vladimir Mikhaylovich;
RUSAKOVA, N.G., spets. red.; ROZENBERG, M.R., spets. red.
VACHAYEVA, Z.P., red.-leksikograf

[German-Russian dictionary of refrigeration engineering]
Nemetsko-russkii slovar' po kholodil'noi tekhnike. Mo-
skva, Sovetskaia Entsiklopediia, 1965. 246 p.
(MIRA 18:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut kholc-
dil'noy promyshlennosti (for Rusakova, Rozenberg).

ROZENBERG, M.D., kandidat fiziko-matematicheskikh nauk.

Contrast in yields of oil wells located in oval and elliptical
pools. Trudy MNI no.11:128-130 '51 (MLRA 10:3)
(Oil sands) (Oil wells)

RCZENBERG, M.D., kandidat fiziko-matematicheskikh nauk.

The most suitable arrangement of wells in oil formations employing
water drive. Trudy MNI no.11:130-144 '51, (MLRA 10:3)

(Oil field flooding)

ROSENBERG, N. D.

Filters and Filtration

Interference of fissures in the elastic system of the filtration of oil. Dokl.
AN SSSR 84 no. 1, 1952. rcd. 27 Feb. 1952

SO: Monthly List of Russian Accessions, Library of Congress, September 1952, Uncl.

GLOGOVSKIY, M.M., kandidat tekhnicheskikh nauk; ROZENBERG, M.D., kandidat fiziko-matematicheskikh nauk.

Water displacement of a liquid containing dissolved gas in the case of radial flooding. Trudy MNI no.12:206-223 '53. (MLRA 9:8)
(Oil field flooding) (Fluid dynamics)

GLOGOVSKIY, M. M., ROZENBERG, M. D.

USSR (600)

Hydromechanics.

Radial displacement of aerated petroleum by marginal water. Dokl. AN SSSR 85
no. 6, 1952.

Monthly List of Russian Accessions, Library of Congress, December 1952. Unclassified.

11 Mar 53

ROZENBERG, M. D.

USSR/Mathematics - Theory of Filtration

"Certain Nonlinear System of Partial Differential Equations Applicable in Theory of Filtration," M. D. Rozenberg

DAN SSSR, Vol 89, No 2, pp 233-236

Presents particular cases of eqs which are reduced to a system of ordinary differential eqs. Discusses transformations. Previous cases of transformation were performed by L. S. Leybenzon (IZ Ak Nauk SSSR, Ser. Geogr. i Geof. 9,1 (1945)) and by P. Ya. Polubarinova-Kochina (DAN SSSR, 58,6 (1948)) who applied it to filtration of ground waters. Presented by Acad A. I. Nekrasov. Recd 18 June 52.

Source #264T91

ROZENBERG, M.D.

Handwritten:
2345
Cherny
1956

2345. Cherny, I. A., and Rozenberg, M. D., Borehole Interaction
in conditions of elastic infiltration (in Russian), Trud. Moskov.
In-ta no. 12, 184-201, 1953; Rev. no. 959, 1956.

An examination of the problem of interaction between boreholes
under elastic conditions of infiltration of the liquid in a stream of
infinite extent. In first paragraph a method is given for determin-
ing the pressure (or the density of the liquid) at any point in the
stratum, provided the borehole pressures are known. The solution
of the problem is related to the solution of a system of Volterra
equations. If a Laplace operator is applied to this system of
integral equations, a system of linear equations is obtained,
determining the conformal representations $Q_i(z)$ of the required
delivery volumes $q_i(t)$.

In paragraphs 2, 3 and 4, the method of successive substitution
of steady-state conditions is applied to the solution of the above
problem. The problem of the interaction of an infinite system of
boreholes in a stream of infinite extent is examined.

In paragraph 5, the results are correlated with the rigorous
solutions for the cases of radial and rectilinear flow of the liquid.

Depression...
Courtesy of Referativnyi Zhurnal
Translation, courtesy Ministry of Supply, England

USSR/Geophysics - Petroleum, Recovery 11 Aug 53

"Displacement of Gasified Petroleum by Boundary
Water," M. M. Glogovskiy and M. D. Rozenberg

DAN SSSR, Vol 91, No 5, pp 1031-1034

Containing their previous work (DAN 85, 6 (1952))
the authors analyze radial problem of the displace-
ment of petroleum by water, taking into

ROSENBERG, M. D.

Among the papers presented by the First All-Union Conference on Aerohydrodynamics (8-13 Dec 1952) convened by the Institute of Mechanics, Academy of Sciences USSR, was:

"Unsteady Motion of Multiphasic Liquids" by Rosenberg, M. D.

SO: Izvestiya AN USSR, Otdeleniye Tekhnicheskikh Nauk, No. 6, Moscow,
June 1953, (W-30662, 12 July 1954)

Rozenberg, M.D.
PRMSNYAKOV, A.A., kand.tekhn.nauk; ROZENBERG, M.D., inzhener; PRIMATOVA, L.V.;
VOLKOGON, G.T.

Technological problems in the production of strips of MZhN-1 alloy.
TSvet.met. 27 no.6:60-65 N-D '54. (MIRA 10:10)
(Copper-Iron-Nickel alloys)

ROZENBERG, M.D.

Filtration of multiphase liquids in a porous medium. Trudy VNII
no.6:230-239 '54. (MLRA 9:1)
(Fluid dynamics) (Porosity)

ROZENBERG, M. D.

PA 243T49

USSR/Engineering - Hydraulics, Petroleum Oct 52

"On the Unsettled Filtration of Gassed Liquid in a Porous Medium," M. D. Rozenberg

"Iz Ak Nauk, Otdel Tekh Nauk" No 10, pp 1489-1500

Discusses filtration that will give rise to real properties of liquid and gas under conditions of petroleum bed. Motion is described by system of 2 nonlinear partial differential equations. For unlimited bed, problem is brought to solution of system of 2 ordinary differential equations. For radial filtration in closed reservoir, relation between pressure and saturation permits estimate

243T49

of possible extraction of liquid from bed and may be obtained by solution of ordinary differential equation of first order. Submitted by Acad A. I. Nekrasov 21 Jun 51.

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Rosenberg, M. D.

2345. Charny, I. A., and Rosenberg, M. D., Borehole interaction in conditions of elastic infiltration (In Russian), *Trud. Moskov. univ.*, In-14 no. 12, 184-201, 1953; Rev. no. 959, *Ref. Zh. Mekh.* 1956.

An examination of the problem of interaction between boreholes under elastic conditions of infiltration of the liquid, in a stream of infinite extent. In first paragraph a method is given for determining the pressure (or the density of the liquid) at any point in the stratum, provided the borehole pressures are known. The solution of the problem is related to the solution of a system of Volterra equations: if a Laplacian operator is applied to this system of integral equations, a system of linear equations is obtained, determining the conformal representations $Q_i(x)$ of the required delivery volumes $q_i(t)$.

In paragraphs 2, 3 and 4, the method of consecutive substitution of steady-state conditions is applied to the solution of the above problem. The problem of the interaction of an infinite system of boreholes in a stream of infinite extent is examined.

In paragraph 5, the results are correlated with the rigorous solutions for the cases of radial and rectilinear flow of the liquid. As is shown in the article, the method of consecutive substitution is found to be less accurate in the case of radial flow than in the case of rectilinear flow.

SOV/124-57-4-4488

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 4, p 89 (USSR)

AUTHORS: Glogovskiy, M. M., Rozenberg, M. D.

TITLE: Displacement of Petroleum in a Gas-driven System (Vytesneniye nefi pri gazonapornom rezhime)

PERIODICAL: Tr. Vses. neftegaz. n.-i. in-t, 1956, Nr 8, pp 280-310

ABSTRACT: The process of the displacement of petroleum by means of injection of gas into the gas cap was investigated (with and without allowance for the viscosity of the gas) in the following two cases: 1) Constant operating pressure on the injection-well bottoms and 2) the volumetric flow rate of the gas injected being a function of time. Problems on concurrent withdrawal of oil from the oil reservoir and gas from the gas cap are examined together with problems on the withdrawal of oil from the reservoir with an expansion of the gas cap without injecting any additional gas, and problems of the withdrawal of gas from the latter. Sample computations and graphs are given for all cases. The results obtained are extended to include the case of multiple rows of producing wells.

Card 1/1

V. A. Karpychev

15-57-3-4009

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 3,
p 211 (USSR)

AUTHORS: Glogovskiy, M. M., Rozenberg, M. D.

TITLE: Reduction of the Calculation for Inflow of Aerated Fluid
to the Calculation of Flow of Incompressible Fluid (O
svedenii raschetov pritoka gazirovannoy zhidkosti k
raschetam techeniya neszhimayemoy zhidkosti)

PERIODICAL: Tr. Vses. neftegaz. n-i. in-t, 1956, Nr 8, pp 311-319

ABSTRACT: Bibliographic entry

Card 1/1

ROZENBERG, M. D.

ROZENBERG, M. D.: "The influx of gasified oil to iol wells (methods of hydrodynamic calculation)." Min Petroleum Industry USSR. All*Union Sci Res Petroleum and Gas Inst. Moscow, 1956
(Dissertation for the degree of Doctor in Technical Sciences)

SO: Knizhnaya Letopis', No36, 1956, Moscow..

SOV/124-57-3-3283

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 3, p 93 (USSR)

AUTHOR: Rozenberg, M. D.

TITLE: On the Gas-oil Ratio in Nonstationary Seepage Flow of Gas-containing Petroleum (O gazovom faktore pri neustanovivsheysya fil'tratsii gazirovannoy nefti)

PERIODICAL: Tr. Vses. neftegaz. n.-i. in-ta, 1956, Nr 8, pp 320-322

ABSTRACT: It is demonstrated that in the case of nonstationary seepage flow of gas-containing oils the value of the gas-oil ratio can not remain constant along the line of flow. Thus, the statement regarding the constancy of the gas-oil ratio for each computational instant of time, as employed in the method of successive changes in steady state, is merely a simplifying assumption; in strict formulation, one ought to speak of a small variability of the gas-oil ratio.

V. A. Arkhangel'skiy

Card 1/1

124-58-9-10137

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 9, p 104 (USSR)

AUTHOR: Rozenberg, M. D.

TITLE: On the Displacement of Oil by Means of Gas and Water (O vytesnenii nefi gazom i vodoy)

PERIODICAL: Tr. Vses. neftegaz. n.-i. in-t, 1957, Nr 10, pp 141-215

ABSTRACT: An examination, under a set of extremely schematized premises, of a number of problems related to displacement processes in a porous medium, wherein in one set of cases oil is displaced by gas, and in another set oil is displaced by two-sided action of water and gas. (In all cases the viscosity of the gas and the compressibility of the oil are disregarded; in the majority of the problems the hypothesis of a piston-like ejection process is accepted, also other assumptions varying from case to case.) It is indicated that in reality the displacement processes are significantly more complicated than is assumed in the overwhelming majority of the problems adduced in the paper; in connection therewith corrections, to be introduced into the setup of the problems, are provided in the closing paragraphs of the paper; this leaves one to wonder at the purpose of the numerous problems

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124-58-9-10137

On the Displacement of Oil by Means of Gas or Water

worked without those corrections in the preceding sections of the paper. Bibliography: 9 references.

V. A. Arkhangel'skiy

1. Fluid mechanics--Theory 2. Water--Properties 3. Gases--Properties 4. Oils
--Properties

Card 2/2

AUTHOR: ROZENBERG, M.D. PA - 2234
 TITLE: On Radial Displacement of Gas Containing Oil by Water. (0 radial'
 nom vytesnenii gazirovannoy nefti vodoy, Russian).
 PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol 112, Nr 4, pp 603 - 606 (U.S.S.R)
 Received: 4 / 1957 Reviewed: 5 / 1957

ABSTRACT: The author investigates a circular deposit of the diameter r_k in the center of which, at the moment $t = 0$, a borehole begins to act. Let either a constant pressure or the consumption of the water that penetrates into the layer be assumed at a distance of r_0 (taken from the center of the deposit) in the pressure water area. Operation in the pressure water area is, in disregard of water elasticity, considered to be due to gravitation and water pressure. The author here puts the saturation pressure equal to the primary pressure in the layer. In addition, the author assumes that the mineral oil is completely pressed out by the water.

From two ansatzes for the yield of mineral oil and for the quantity of water penetrating into the layer the author determines a differential equation for the purpose of solving the problem mentioned in the title under different conditions. On the feeding periphery of the pressure water area either the momentary quantities of the water penetrating into the layer or the pressure, and at the borehole either the yield of mineral oil or pressure can be assumed.

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PA - 2234

On Radial Displacement of Gas Containing Oil by Water.

In the simplest case, that is with the constant consumption of water and constant yield of mineral oil, the differential equation of the problem can be integrated.

The most interesting case in practice is that of a constant pressure being assumed on the feeding periphery. The author puts it equal to the pressure ($-p_0$) at first prevailing in the layer. The differential equation is specialized and numerically integrated for this case. As initial conditions the values of average pressure and average saturation can be applied. The case of constant extraction of mineral oil from the layer is investigated more closely.

The results of these calculations are shown in a diagram. According to this the process of displacing the gas containing mineral oil from the layer can be subdivided into two periods. During the first period both pressure and saturation decrease considerably, even if the gas is dissolved. Water consumption at the same time increases from nil up to a value which is equal to the total extraction of mineral oil and gas out of the layer. At the beginning of the second period the quantity of water having entered the layer is larger than the extraction of mineral oil and gas; saturation then

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PA - 2234

On Radial Displacement of Gas Containing Oil by Water.

increases considerably and pressure slightly. During the main period the gas containing mineral oil is forced out of the layer as a practically incompressible liquid. (2 illustrations).

ASSOCIATION: All-Soviet Institute of Scientific Research for Mineral Oil and Gas
PRESENTED BY: Member of the Academy A.I. NERKASOV on 4.9.1956
SUBMITTED 19.9.1956
AVAILABLE: Library of Congress

Card 3/3

SOV/124-58-2-2020

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 2, p 75 (USSR)

AUTHOR: Rozenberg, M. D.

TITLE: On the Calculations of the Depletion of Petroleum Deposits in the Presence of Dissolved Gas (K raschetam istoshcheniya neftyanykh mestorozhdeniy pri rezhime rastvorennogo gaza)

PERIODICAL: Tr. Vses. neftegaz. n.-i. in-ta, 1957, Nr 10, pp 250-256

ABSTRACT: Presentation of a proposal relative to the approximate integration of the relationships between the pressure and the petroleum saturation at the boundary of a reservoir, wherein it is assumed that the latter contains gas and that the "volumetric coefficient" (interpreted here to mean "coefficient of compressibility"; Transl. Ed. Note) of the petroleum is not constant, as had been assumed in earlier works of the author, but a function of the pressure.

V. A. Arkhangel'skiy

Card 1/1

124-58-9-10138

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 9, p 104 (USSR)

AUTHOR: Rozenberg, M. D.

TITLE: On the Radial Displacement of Gas-bubble-containing Oil by Means of Water (O radial'nom vytesnenii gazirovannoy nefi vody)

PERIODICAL: Tr. Vses. neftegaz. n. -i. in-t, 1957, Nr 10, pp 266-295

ABSTRACT: An examination of the problem of the radial displacement of gas-bubble-containing oil under different premises: 1) piston-type ejection of the oil by the water with a constant rate of water entering the reservoir and with a constant pressure at the contour of influence; 2) incomplete displacement of the oil by the water, which is conducive to a decreased phase permeability relative to water and a reduced effective porosity in the zone of substitution, assuming the pressure at the contour of influence to be constant and the oil yield or the well pressure to be known. Relationships for the mean pressure, the mean saturation, the gas-content factor, and the position of the water-oil interface against time are obtained for certain specific examples; the equations therfor are derived by means

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124-58-9-10138

On the Radial Displacement of Gas-bubble-containing Oil by Means of Water

of numerical integration from a system of nonlinear differential equations and are represented in the form of tabulations and graphs. They yield substantially more accurate results than those obtained earlier by the author in collaboration with M. M. Golovskiy. It is shown that in the case of a constant pressure on the contour of influence the process of the displacement of a gas-bubble-containing oil by means of water can be divided into two distinct periods. In the first period, which is comparatively brief, the pressure and saturation diminish sharply, just as in the case of a dissolved gas. Then, at the inception of the second period, the saturation and pressure increase, whereupon the gas-bubble-containing oil is expelled by the water virtually like an incompressible liquid; this, of course, simplifies the problem greatly. Bibliography: 9 references.

V. L. Danilov

1. Fluid mechanics--Theory
2. Water--Properties
3. Oils--Properties
4. Gases--Properties

Card 2/2

ROZENBERG, M.D.

SOV/124-58-5-5603

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 5, p 99 (USSR)

AUTHORS: Kogan, L. G., Rozenberg, M. D.

TITLE: The Flow of Gas-bubble-containing Petroleum in Conditions of Small Variations in Saturation (Teheniye gazirovannoy nefti pri maloizmenyayushchikhsya nasyschennostyakh)

REMARKS: Tr. Vses. neftegaz. n.-i. in-ta, 1957, Nr 10, pp 301-311

ABSTRACT: For a more general case than that treated earlier by M. D. Rozenberg (Tr. Vses. neftegaz. n.-i. in-ta, 1954, Nr 6, pp 230-239; RZhMekh., 1955, Nr 3, abstract 1440), the linearization of a system of equations is performed for a non-stationary flow of gas-carrying petroleum. The system is eventually reduced to the heat-conductivity equation. Considerations are advanced for an analog simulation of the obtained equation on the integrating analog computer intended for solving problems of an elastic regimen. For a particular case of flow in a semi-infinite layer examined by M. D. Rozenberg earlier, a new and more exact comparison of the results of the linearized equation with those of the nonlinearized one is given. A typographic error is evident in

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SOV / 124-58-5-5603

The Flow of Gas-bubble-containing Petroleum (cont.)

equations (4); the second equation contained within the square brackets should be a product and not a sum of the two terms.

V. A. Arkhangel'skiy

1. Fluid flow--Mathematical analysis
2. Petroleum--Motion

Card 2/2

SOV/124-58-2-2021

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 2, p 75 (USSR)

AUTHORS: Rozenberg, M. D., Zinov'yeva, L. A., Klyarovskiy, G. V.

TITLE: Hydrodynamic Calculation Methods Relative to the Recovery of the Gas Content of a Petroleum, When the Gas Occurs in Solution
(Metodika gidrodinamicheskikh raschetov dobychi poputnogo gaza pri rezhime rastvorennogo gaza)

PERIODICAL: Tr. Vses. neftegaz. n. -i. in-ta, 1957, Nr 10, pp 257-265

ABSTRACT: Presentation of a calculation method relative to the recovery of gas appearing in deposits in dissolved form, starting from the prescribed (time) rate of withdrawal of the petroleum; the proposed method employs the petroleum-balance equation and a condition which connects the mean petroleum saturation within the reservoir and the mean pressure, which varies as the recovery process progresses. This condition is obtained as a result of the numerical integration of the relationship between the values of the averaged petroleum saturation and the pressure, as supplied in a work by M. D. Rozenberg [Rozenberg, M. D., K raschetam istoshcheniya neftnyanykh mestorozhdeniy pri rezhime rastvorennogo gaza (On

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SOV/124-58-2-2021

Hydrodynamic Calculation Methods Relative to the Recovery (cont.)

the Calculations of the Depletion of Petroleum Deposits in the Presence of Dissolved Gas). Tr. Vses. neftegaz. n.-i. in-ta, 1957, Nr 10, pp 250-256; RZhMekh, 1955, Nr 2, abstract 2020]. The authors provide a numerical sample calculation for the determination of the recovery of the gas and adduce concepts relative to the verification and correction of such calculations with reference to production-measurement data.

V. A. Arkhangel'skiy

Card 2/2

ROZENBERG, M.D.

KRYLOV, A.P.; BORISOV, Yu.P.; BUCHIN, A.N.; VIRNOVSKIY, A.S.; ROZENBERG,
M.D.; EFROS, D.A.

Increasing petroleum extraction and reducing capital expenditure
in the development of oil fields. Neft, khov. 35 no. 5:21-30 My
'57. (MIRA 10:6)

(Petroleum industry)

BOKSERMAN, A.A.; ROZENBERG, M.D.

Flooding gassy oil taking into account a two-phase flow in the transition zone. Nauch.-tekh. sbor. po dob. nefti no.1:11-18 '58. (MIRA 15:9)

1. Vsesoyuznyy neftegazovyy nauchno-issledovatel'skiy institut.
(Oil field flooding)